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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Nicolaides *et al.*

Confirmation No.: 6480

Serial No.: 09/853,646

Group Art Unit: 1632

Filing Date: May 14, 2001

Examiner: R.R. Shukla

For: A METHOD FOR GENERATING HYPERMUTABLE ORGANISMS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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TECH CENTER 1600/2900

Declaration under 37 CFR 1.131

I, Nicholas C. Nicolaides, hereby state the following:

1. I earned my doctorate in Genetics at Thomas Jefferson University in Philadelphia, Pennsylvania.
2. I am a founder of Morphotek Inc., and serve as President, Chief Executive Officer and Chief Science Officer.
3. I am an inventor of the above-referenced patent application and am thoroughly familiar with the field of molecular biology, and in particular, mismatch repair.
4. In accordance with the teachings of our specification, we have generated a dominant negative mutant form of a plant PMS2 from *Arabidopsis thaliana*.
5. The following describes the experiments for expression of an *Arabidopsis thaliana* PMS2 truncation mutant in bacteria:

An *Arabidopsis thaliana* dominant negative MMR gene mutant was created by generating a construct with similar domains to that of the human dominant negative PMS2 gene (referred to as hPMS2-134). To generate this vector, the *A. thaliana* PMS2 (ATPMS2) and human PMS2 (hPMS2) cDNA sequences were aligned and the conserved domain was isolated. Figure 1 shows a sequence alignment between the human and *A. thaliana* PMS2-134 amino acid sequences wherein a 51% identity is found between the

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